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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,561	12/07/2005	David Thompson	211-263	4543

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EXAMINER

HE, AMY

ART UNIT	PAPER NUMBER
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2858

MAIL DATE	DELIVERY MODE
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07/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,561	THOMPSON, DAVID	
	Examiner	Art Unit	
	Amy He	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 May 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-12 and 19 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) Claim(s) ____ is/are allowed.

6) Claim(s) 1-5 is/are rejected.

7) Claim(s) 6-12 and 19 is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 June 2005 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. ____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date ____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____.

5) Notice of Informal Patent Application

6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (hereafter referred to as AAP)(see specification pages 1-2), in view of Drori et al. (U. S. Patent No. 6, 331, 768).

As for claim 1, AAP discloses (in specification pages 1-2) a rotary potentiometer (rotary potentiometer) for providing an output signal indicative of a position of a component (throttle position), the potentiometer comprising:

- a body (the body/ part for supporting the resistor coil);
- a member (rotatable shaft) moveable relative to the body and having an end portion for coupling to said component (throttle);
- a resistor (resistor coil) mounted to the body;
- a wiper (wiper) coupled to the member and forming a slidable electrical contact to the resistor (resistor coil).

As for claims 2-3, AAP discloses that the potentiometer is a rotary potentiometer for providing an output signal indicative of an angular position of said component (throttle position);

said member is a shaft (rotatable shaft) having an axis, the shaft being rotatable about the axis relative to the body;

said resistor (resistor coil, see specification page 1, lines 13-14) is mounted to the body in an arc (circular arc) around the axis.

Still referring to claims 1-3, AAP does not specifically disclose contactor means, for providing selectable contact positions to said resistor, of respective first and second electrical conductors, so as to provide a selected operating section of said resistor/operating angle of said potentiometer.

Drori et al. discloses contactor means, for providing selectable contact positions to a resistor, of respective first and second electrical conductors (see the plurality of contact means comprising electrical connections numbered 0 to m as shown in Figure 1), so as to provide a selected operating section of the resistor/operating angle of the potentiometer, for the purpose of providing a plurality of coarse setting of the potentiometer (col. 4, lines 38-41).

A person of ordinary skill in the art would find it obvious at the time of the invention to modify AAP to incorporate the use of contactor means, for providing selectable contact positions to a resistor, of respective first and second electrical conductors, as taught by Drori et al., so as to provide a selected operating section of the resistor/operating angle of the potentiometer, for the purpose of providing a large number (e.g., more than 2) of coarse setting of the potentiometer (col. 4, lines 38-41).

As for claims 4-5, AAP does not specifically disclose that each contact position is selectable by selection of a conductive contactor, comprise contactor fingers, from a

plurality of conductive contactors such that only the selected contactor/ finger contacts the resistor.

Drori et al. discloses that each contact position is selectable by selection of a conductive contactor comprise fingers (the contact means/fingers labeled 0 to m as shown in Figure 1, connecting the conductive wiper) from a plurality of conductive contactors (the plurality of contact means 0 to m in Figure 1, connecting the conductive wiper) such that only the selected contactor finger contacts the resistor.

A person of ordinary skill in the art would find it obvious at the time of the invention to modify AAP to incorporate the use of a plurality of conductive contactor fingers, as taught by Drori et al., so that each contact position is selectable by selection of a conductive contactor finger from the plurality of conductive contactor fingers such that only the selected contactor finger contacts the resistor, for the purpose of providing a large number of coarse setting of the potentiometer (col. 4, lines 38-41).

Allowable Subject Matter

2. Claims 6-12 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6, 8 and 10 are allowable because none of the prior art discloses a potentiometer comprising contactor fingers, wherein the contactor fingers are fingers of a contactor plate, the selected contactor finger being positioned by bending the finger relative to the plate so as to contact the resistor.

Claim 7 is allowable because none of the prior art discloses a potentiometer comprising contactor fingers, wherein the contactor fingers is selected by bending unselected fingers so that only the selected finger contacts the resistor.

Claims 9 and 19 is allowable because none of the prior art discloses two contactor plates, one for connection of each of the first and second electrical conductors to the resistor.

Claims 11-12 are allowable because none of the prior art discloses a potentiometer, wherein the resistor coil is mounted to the body by means of a clamping ring which clamps the coil between the mounting ring and the body.

Response to Arguments

3. Applicant's arguments filed May 14, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that Drori teaches away from the present invention because it pertains to an electronic solid state potentiometer, whereas applicant's application relates to a mechanically adjustable device, note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, applicant admitted prior art or AAP discloses all the subject matters except a

contactor means of respective first and second electrical conductors, for providing selectable contact positions to a resistor, so as to provide selectable operating section of the resistor. Drori et al. discloses contactor means of a plurality of electrical conductors (the electronic connection 0 to m connected to each internal nodes, as shown in Figure 1), for providing selectable contact positions to a resistor (60), and selectable operating section of the resistor (60), for the purpose of providing a coarse setting of the potentiometer (col. 4, lines 38-41). The combined teachings of the references would have suggested to those of ordinary skill in the art to modify AAP to use contactor means of a plurality of electrical conductors, for the purpose of providing a large number (e.g., 3 or more) of selectable contact positions to the resistor, and providing a large number of coarse setting of the potentiometer as desired by the specific application at hands.

In response to applicant's argument that "Drori fails to disclose a potentiometer for providing an output signal indicative of the position of a component" or "Drori potentiometer does not have a member moveable relative to a body and having an end portion for coupling to the component" or "Drori potentiometer does not have wiper coupled to the member and forming a slideable electrical contact to the resistor", the examiner submits that Drori does not need to disclose the specific details of the potentiometer as argued by the applicant since Drori is the secondary reference cited for teaching the contactor means. The specific details of the potentiometers as argued by the applicant are taught by applicant's admitted prior art, or AAP.

In response to applicant's argument that Drori fails to disclose a contact means for providing selectable positions to the resistor of respective first and second electrical conductors, so as to provide a selected operating section of the resistor, note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Drori disclose a contact means (the electronic connection 0 to m connected to each internal nodes, as shown in Figure 1) for providing selectable positions to a resistor (60) of respective first and second electrical conductors, so as to provide a selected operating section of the resistor (60). The combined teachings of AAP and Drori would have suggested incorporating the use of a contact means of a plurality of electrical conductors into the rotary potentiometer of AAP, for providing a plurality of selectable contact positions on the resistor of AAP (emphasis added), and to provide a selected operating section of the resistor of AAP. This operating section of the resistor in AAP changes when a different contact position is selected, by the wiper of the AAP.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (571) 272-2230. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH
July 20, 2007.

Anjan Deb
ANJAN DEB
PRIMARY EXAMINER